

CLAIMS

1. A map information creating device comprising:

a geometry data extracting unit that extracts geometry data from map information including a three-dimensional object indicating three-dimensional geometry configured by width, height, and length, the geometry data including a cross-section constituted of at least the width and the height of the three-dimensional object; and

a creating unit that creates a three-dimensional object having geometry identical to that of the three-dimensional object based on the geometry data extracted by the geometry data extracting unit.

2. The map information creating device according to claim 1, further comprising a length information extracting unit that extracts information on length of the three-dimensional object from data including information on the length, wherein

the creating unit creates the three-dimensional object having geometry identical to that of the three-dimensional object further based on the information on length extracted by the length information extracting unit.

3. The map information creating device according to claim 1 or 2, further comprising a link-length information extracting unit that extracts, from network data of a road

to which a plurality of links are connected, link length information on length of a link as the information on length, wherein

the creating unit creates the three-dimensional object
5 having geometry identical to that of the three-dimensional object further based on the link length information extracted by the link-length information extracting unit.

4. The map information creating device according to claim
10 1 or 2, further comprising a link-direction information extracting unit that extracts, from the network data of a road to which a plurality of links are connected, link direction information on direction of a link, wherein

the creating unit creates the three-dimensional object
15 having geometry identical to that of the three-dimensional object further based on the link direction information extracted by the link-direction information extracting unit.

5. The map information creating device according to claim
20 1 or 2, further comprising a texture information extracting unit that extracts texture information including a texture drawn on an arbitrary surface of the three-dimensional object, drawing cycle information on a drawing cycle of the texture, and information on a representative color of the
25 arbitrary surface from the three-dimensional object in the map information, wherein

the creating unit creates the three-dimensional object having geometry and texture identical to those of the three-dimensional object in the map information based on the texture information extracted by the texture
5 information extracting unit.

6. The map information creating device according to claim 1 or 2, wherein

the creating unit includes a detecting unit that
10 detects whether a first end-face-geometry data representing an end face of one of the three-dimensional object created by the creating unit and a second end-face-geometry data representing an end face of another three-dimensional object other than the one of the three-dimensional object
15 intersect with each other, and

the creating unit creates a complementary three-dimensional object that complements between the one of the three-dimensional object and the other of the three-dimensional object by carrying out drawing such that peaks
20 of the first end-face-geometry data and the second end-face-geometry data are extended, based on a result of detection by the detecting unit.

7. A map information creating method comprising:
25 a geometry data extracting step of extracting geometry data from map information including a three-dimensional

object indicating three-dimensional geometry configured by width, height, and length, the geometry data including a cross-section constituted of at least the width and the height of the three-dimensional object; and

5 a creating step of creating a same geometry object having geometry identical to that of the three-dimensional object based on the geometry data extracted at the geometry data extraction step.

10 8. A map information creating program causing a computer to execute the map information creating method according to claim 7.